

SEQ ID NO:1:
SEQ ID NO:2:

ATG	AGT	AAA	GAA	GAA	CTT	TTC	ACT	GGA	GTT	GTC	CCA	ATT	CTT	GTT	48
Met	Ser	Lys	Gly	Glu	5										
1															
GAA	TTA	GAT	GGT	GAT	GT	AAT	GG	CAC	AAA	T	TCT	GTC	AGT	GGA	96
Glu	Leu	Asp	Gly	Asp	Val	Asn	Gly	His	Lys	Phe	Ser	Val	Ser	Gly	
GGT	GAA	GGT	GAT	GCA	ACA	TAC	GGA	AAA	CTT	ACC	CTT	AAA	TTT	ATT	144
Gly	Glu	Gly	Asp	Ala	Thr	Tyr	Gly	Lys	Leu	Thr	Leu	Lys.	Phe	Ile	
ACT	ACT	GGA	AAA	CTA	CCT	GTT	CCA	TGG	CCA	ACA	CTT	GTC	ACT	ACT	192
Thr	Thr	Gly	Lys	Leu	Pro	Val	Pro	Trp	Pro	Thr	Leu	60	Val	Thr	
TCT	TAT	GGT	GTT	CAA	TGC	TTT	TCA	AGA	TAC	CCA	GAT	CAT	ATG	AAA	240
Ser	Tyr	Gly	Val	Gln	Cys	70									
65															
CAT	GAC	TTT	TTC	AAG	AGT	GCC	ATG	CCC	GAA	GTT	TAT	GTA	CAG	GAA	288
His	Asp	Phe	Phe	Lys	Ser	Ala	Met	Pro	Gl	Gly	Tyr	Val	Gln	Glu	
ACT	ATA	TTT	TTC	AAA	GAT	GAC	GGG	AAC	TAC	AAG	ACA	CGT	GCT	GAA	336
Thr	Ile	Phe	Phe	Lys	Asp	Asp	Gly	Asn	Tyr	Lys	Thr	Arg	Ala	Glu	
AAG	TTT	GAA	GGT	GAT	ACC	CTT	GTT	AAT	AGA	ATC	GAG	TIA	AAA	GGT	384
Lys	Phe	Glu	Gly	Asp	Thr	Leu	Val	Asn	Arg	Ile	Glu	Leu	Lys	Gly	
115															

1/10

FIG. 1A

GAT	TTT	AAA	GAA	GAT	GGAA	AAC	ATT	CTT	GGA	CAC	AAA	TTG	GAA	TAC	AAC	432
Asp	Phe	Lys	Glu	Asp	Gly	Asn	Ile	Leu	Gly	His	Lys	Leu	Glu	Tyr	Asn	
	130					135				140						
TAT	AAC	TCA	CAC	AAT	GTA	TAC	ATC	ATG	GCA	GAC	AAA	CAA	AAG	AAT	GGA	480
Tyr	Asn	Ser	His	Asn	Val	Tyr	Ile	Met	Ala	Asp	Lys	Gln	Lys	Asn	Gly	
	145				150					155						
ATC	AAA	GTT	AAC	TTC	AAA	ATT	AGA	CAC	AAC	ATT	GAA	GAT	GGA	AGC	GTT	528
Ile	Lys	Val	Asn	Phe	Lys	Ile	Arg	His	Asn	Ile	Glu	Asp	Gly	Ser	Val	
					165				170							
CAA	CTA	GCA	GAC	CAT	TAT	CAA	AAT	ACT	CCA	ATT	GGC	GAT	GGC	CCT		576
Gln	Leu	Ala	Asp	His	Tyr	Gln	Gln	Thr	Pro	Ile	Gly	Asp	Gly	Pro		
				180				185								
GTC	CTT	TTA	CCA	GAC	AAC	CAT	TAC	CTG	TCC	ACA	TCA	TCT	GCC	CTT	TCG	526
Val	Leu	Leu	Pro	Asp	Asn	His	Tyr	Leu	Ser	Thr	Gln	Ser	Ala	Leu	Ser	
		195					200					205				
AAA	GAT	CCC	AAC	GAA	AAG	AGA	GAC	CAC	ATG	GTC	CTT	CTT	GAG	TTT	GTA	672
Lys	Asp	Pro	Asn	Glu	Lys	Arg	Asp	His	Met	Val	Leu	Glu	Phe	Val		
	210					215					220					
ACA	GCT	GCT	GGG	ATT	ACA	CAT	GGC	ATG	GAT	GAA	CTA	TAC	AAA	TA		716
Thr	Ala	Ala	Gly	Ile	Thr	His	Gly	Met	Asp	Glu	Leu	Tyr	Lys			
	225				230				235							

2/10

FIG. 1B

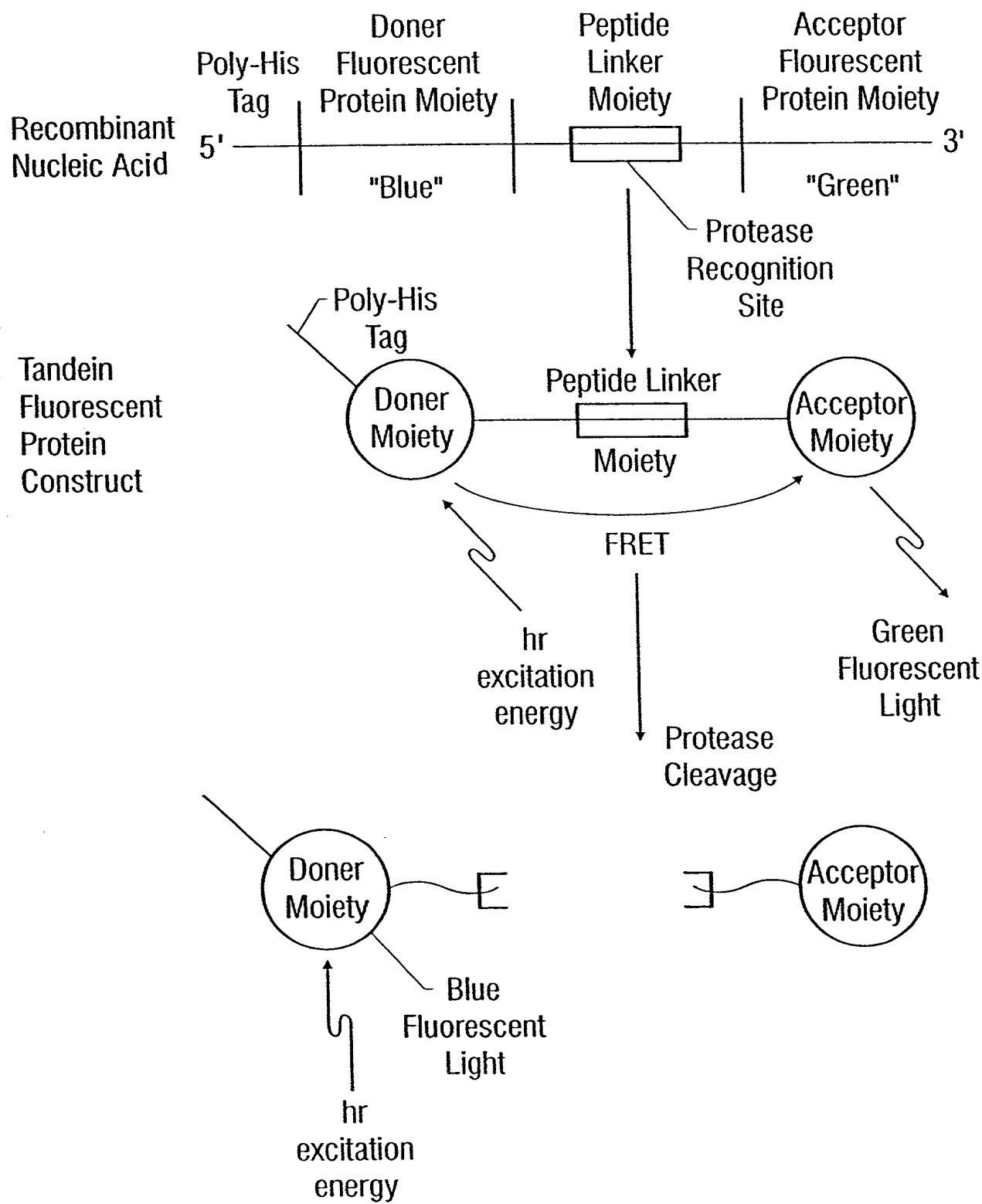


FIG. 2

4/10

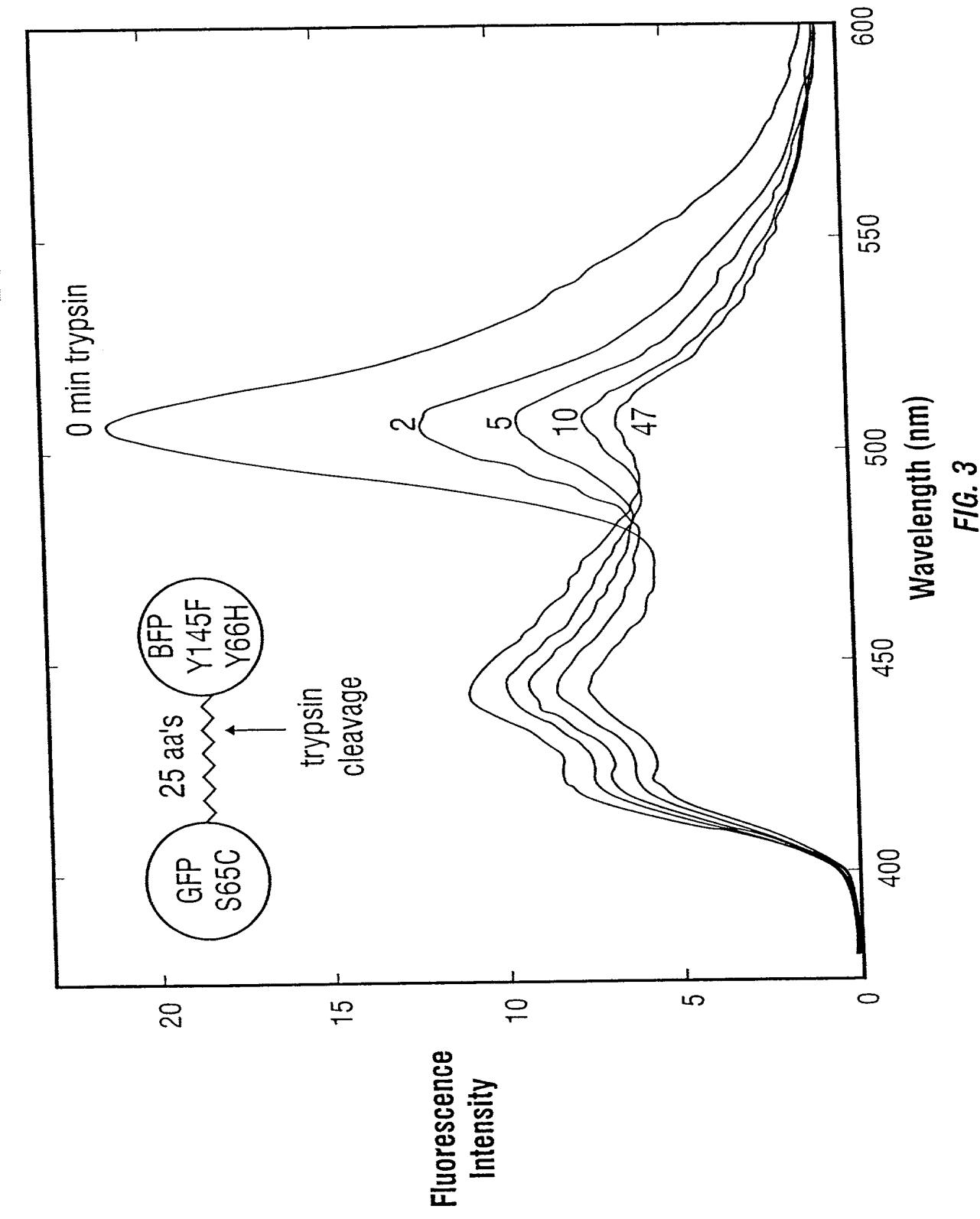


FIG. 3

5/10

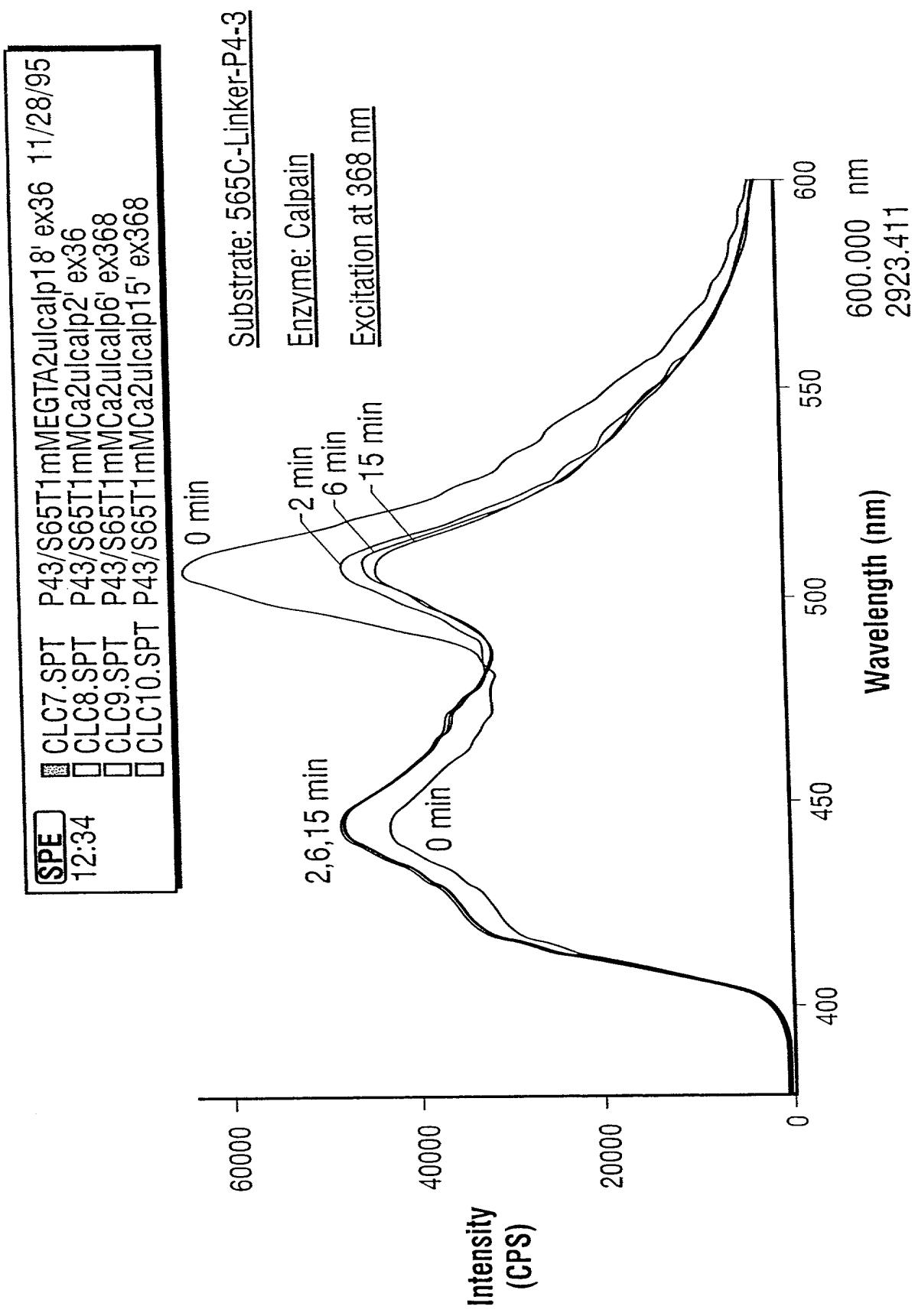


FIG. 4

6/10

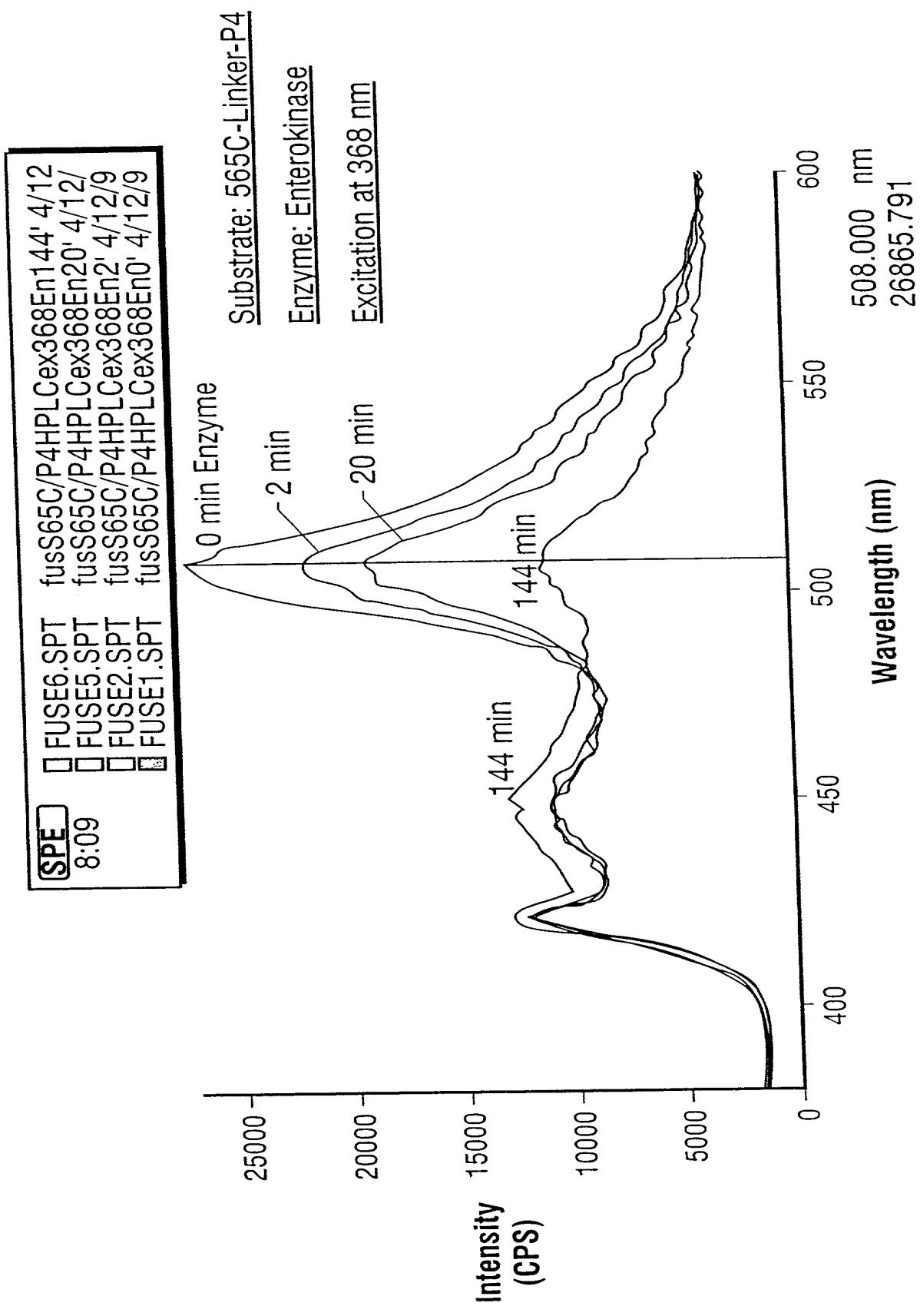


FIG. 5

7/10

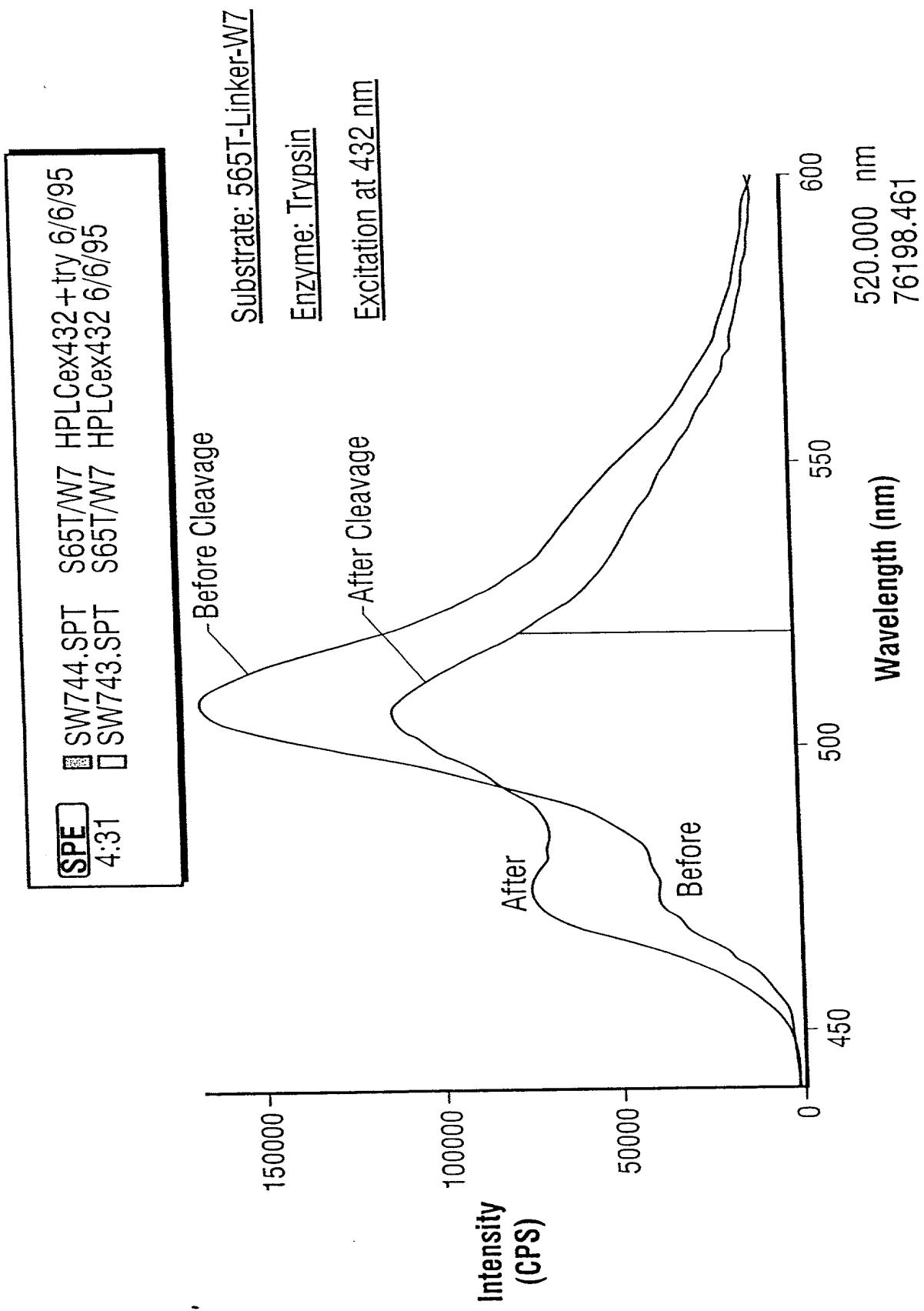


FIG. 6

8/10

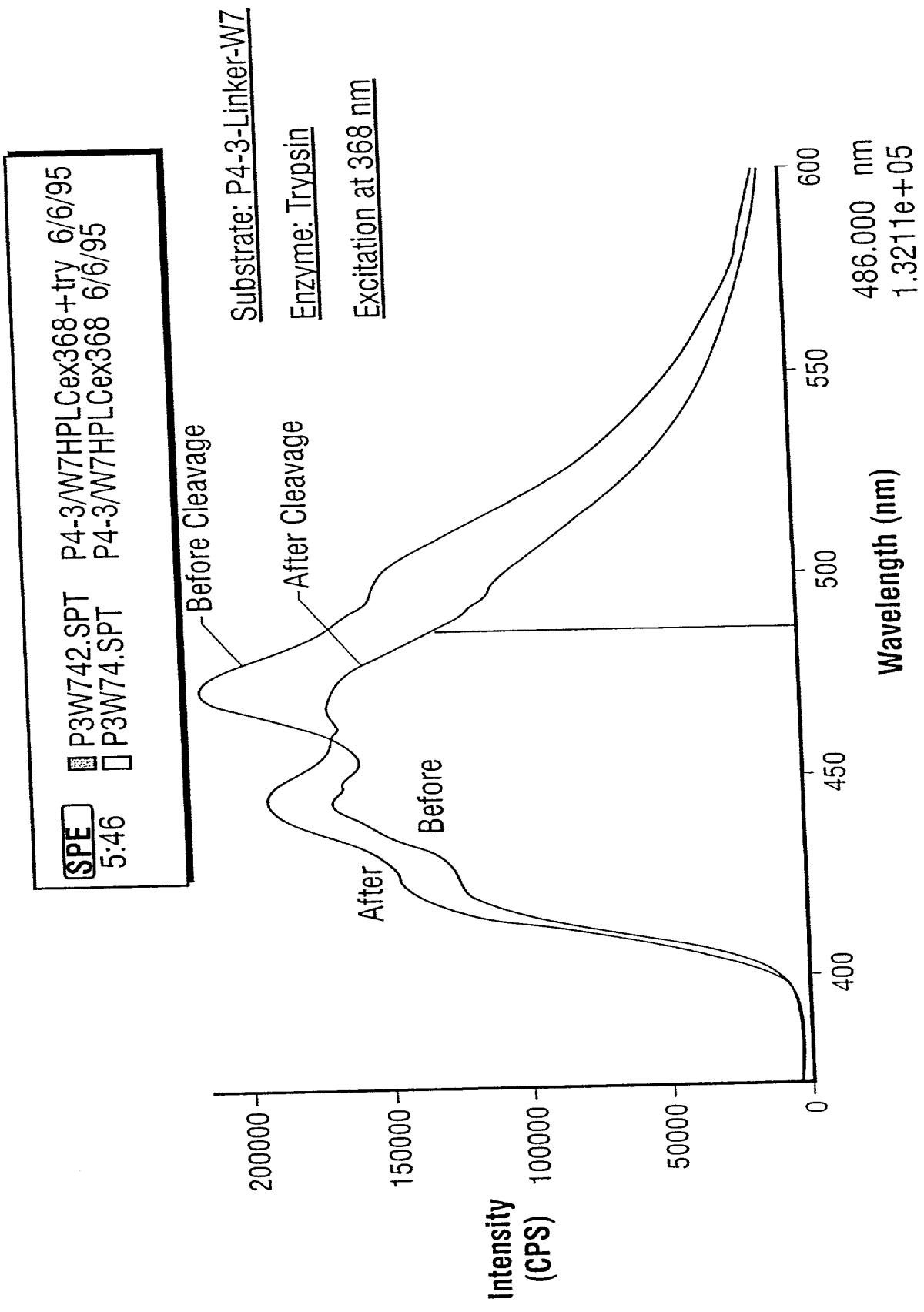


FIG. 7

9/10

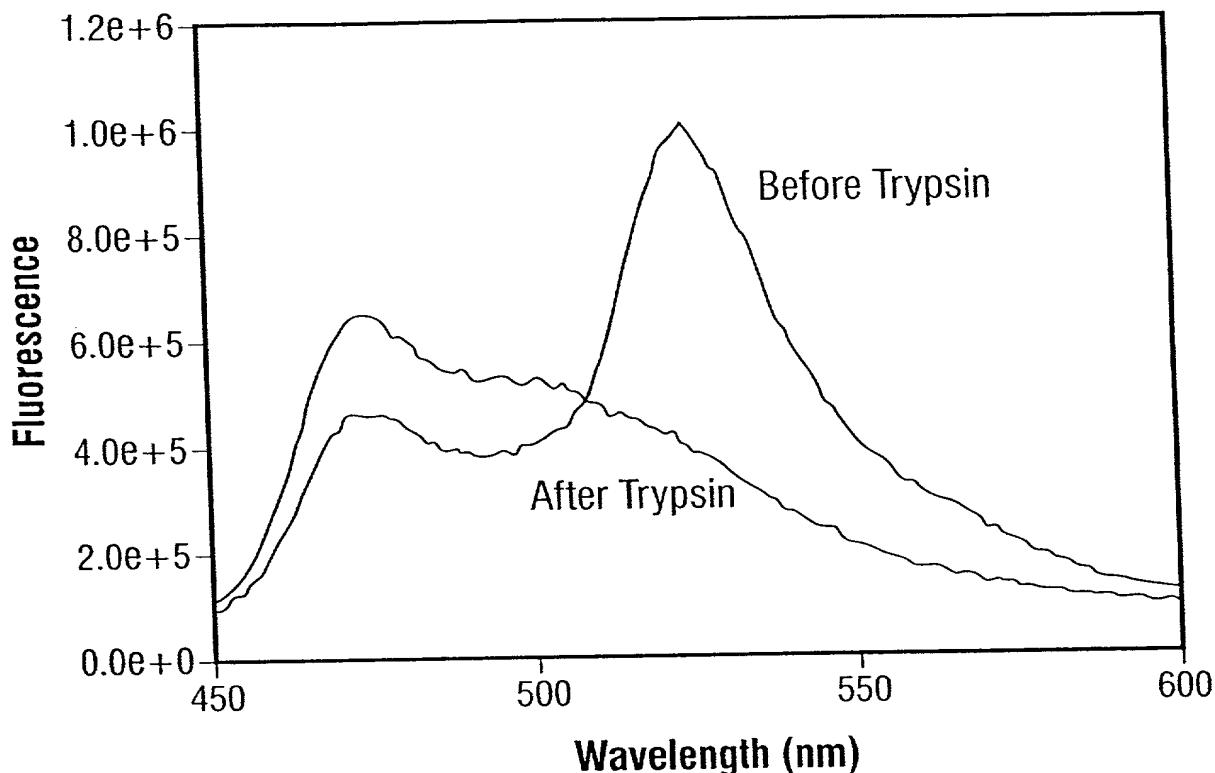


FIG. 8

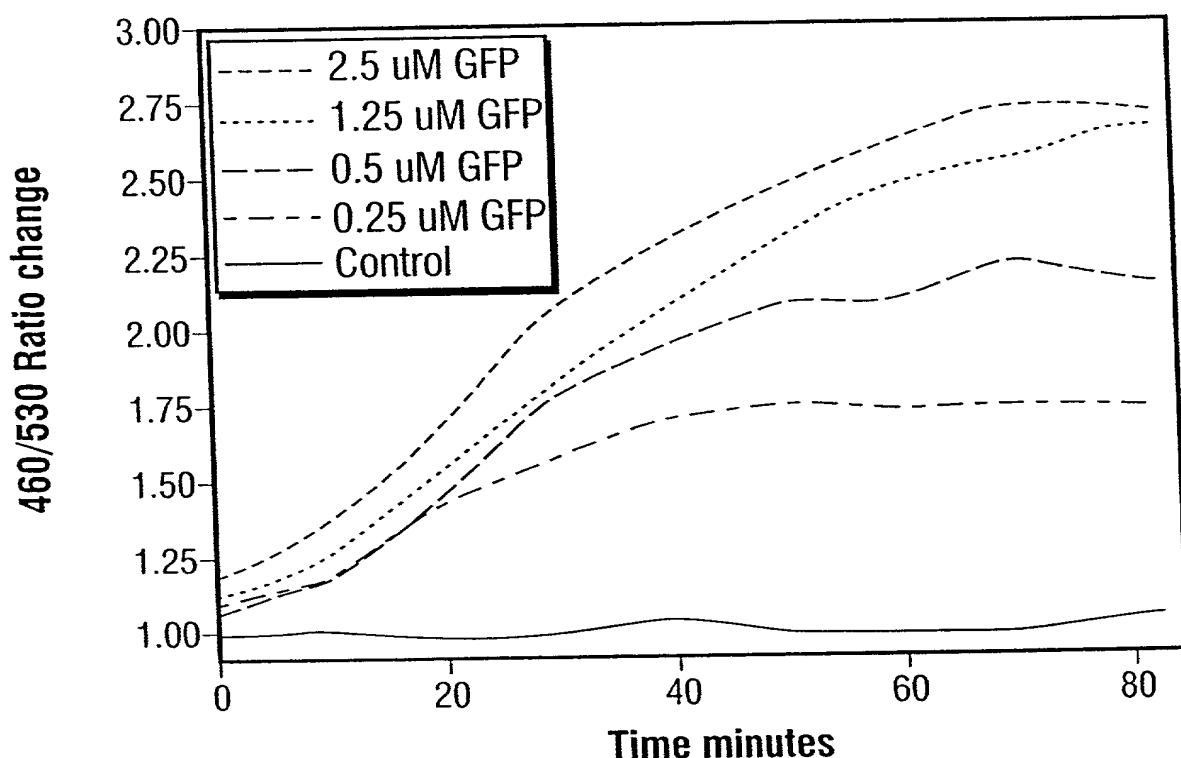


FIG. 9

10/10

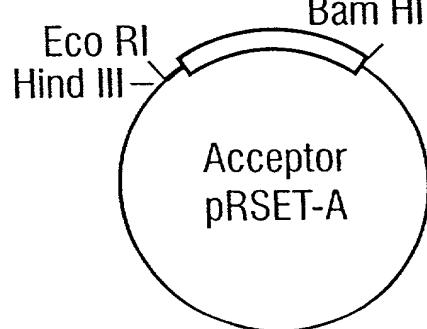
PCR to add randomized linker

Fluorescent protein moiety

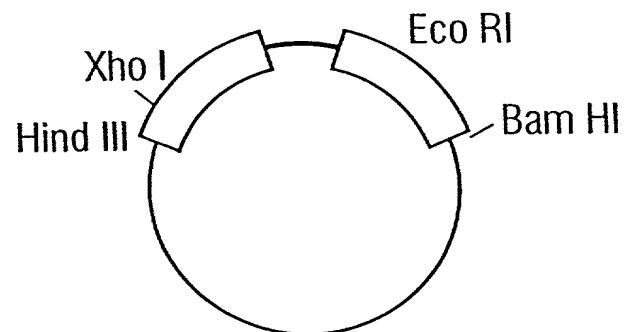
Hind III

Eco RI

Randomized linker



Subcloning into expression cassette containing acceptor fluorescent protein



Transfection and Screening in cells to identify sequences that are cleaved when co-expressed with the target enzyme

FIG. 10